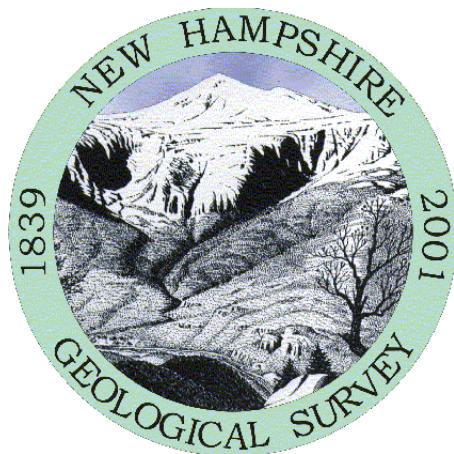


## **Groundwater Level Monitoring November 2018**



**New Hampshire Geological Survey  
29 Hazen Drive, PO Box 95  
Concord, New Hampshire 03302-0095**

**January 14, 2019**

## **GROUNDWATER CONDITIONS SUMMARY**

According to the Northeast Regional Climate Center at Cornell University (NRCC), New Hampshire received an average of 7.37 inches of rain during the month of November, which is 3.07 inches above normal or 171% of normal based on the 1981-2010 precipitation records. The southern portion of the state received more rain than the northern portion, with 8.22 inches (188%) compared to 5.66 inches (137%), respectively. The state is currently free from drought and abnormally dry conditions according to data released by the National Drought Mitigation Center (NDMC) on December 4<sup>th</sup>, 2018.

The majority of wells across the state have either remained normal to high or have recovered to normal or above normal levels with this month's precipitation. Many wells in the south from Deerfield in the east to New London in the west show a marked rise in groundwater level over the past several months. The data show that all of the bedrock wells in the southern portion of the state are above normal to high. The Rindge wells have consistently been in the normal to high range during the last six month period. The overburden well in Lancaster has been consistently low in the last six month period.

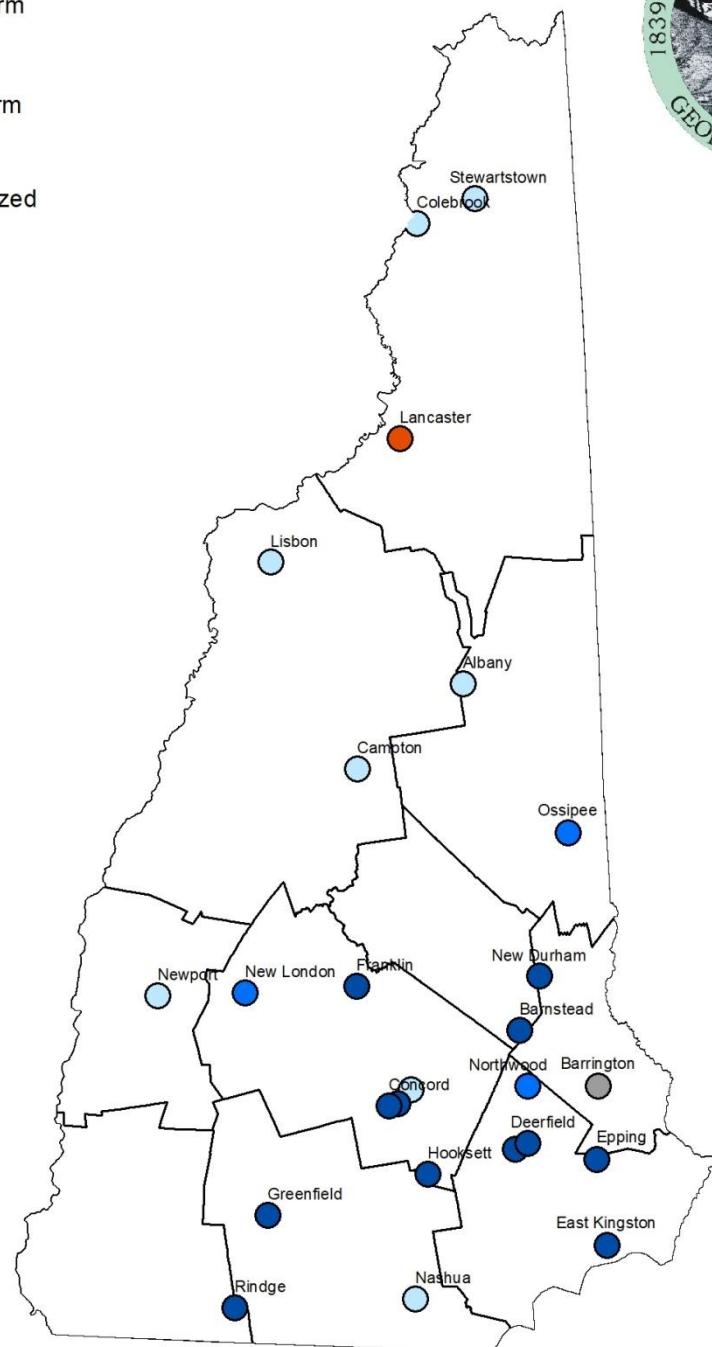
The New Hampshire Geological Survey's groundwater monitoring network (Figure 1) currently includes 11 bedrock (Figure 2) and 20 overburden (Figure 3) observation wells, all of which are measured monthly by hand. Using the monthly hand readings, monthly averages and percentile statistics were calculated and are summarized in Figures 1 through 3, in the following hydrographs\*, and in Tables 1 and 2.

\*The hydrographs show the following data over a period of six months: (1) current groundwater depths, (2) the monthly average over the period of record (POR) of the well, and (3) color-coded statistical ranges over the POR of the well. Note the POR is listed below each month's column on the chart and reported as the number of measurements for that respective month. This might include multiple readings in the same month and does not include gaps in data so therefore may not represent a continuous period.

## November 2018 Groundwater Levels

- High
- Above norm
- Normal
- Below norm
- Low
- Not Analyzed

□ Counties

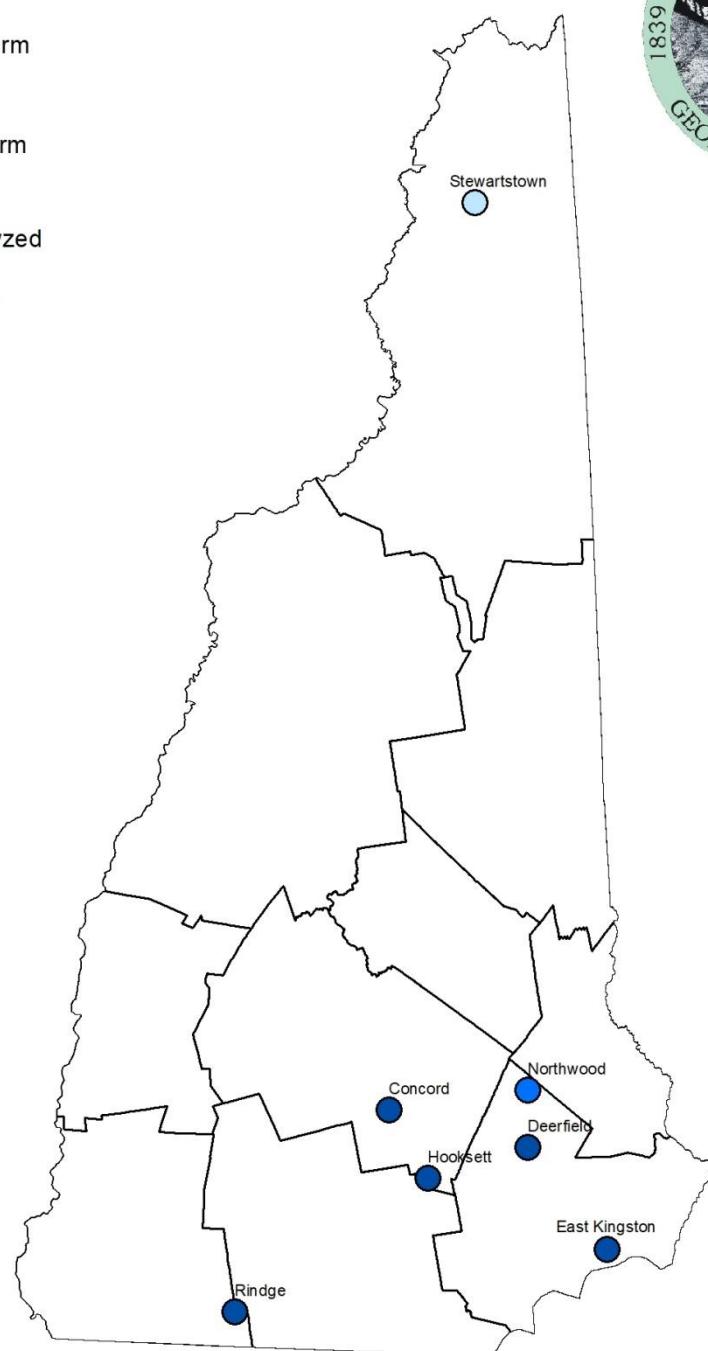


**Figure 1. Groundwater Monitoring Network showing groundwater levels with respect to drought areas defined by the National Drought Mitigation Center.**

## Bedrock Groundwater Conditions

### November 2018 Groundwater Levels

- High
  - Above norm
  - Normal
  - Below norm
  - Low
  - Not Analyzed
- Counties



**Figure 2. Bedrock wells showing groundwater levels with respect to drought areas defined by the National Drought Mitigation Center. Note: Points at Kingston, Concord, Stewartstown, and Rindge show coupled bedrock wells.**

## Overburden Groundwater Conditions November 2018 Groundwater Levels



- High
  - Above norm
  - Normal
  - Below norm
  - Low
  - Not Analyzed
- Counties

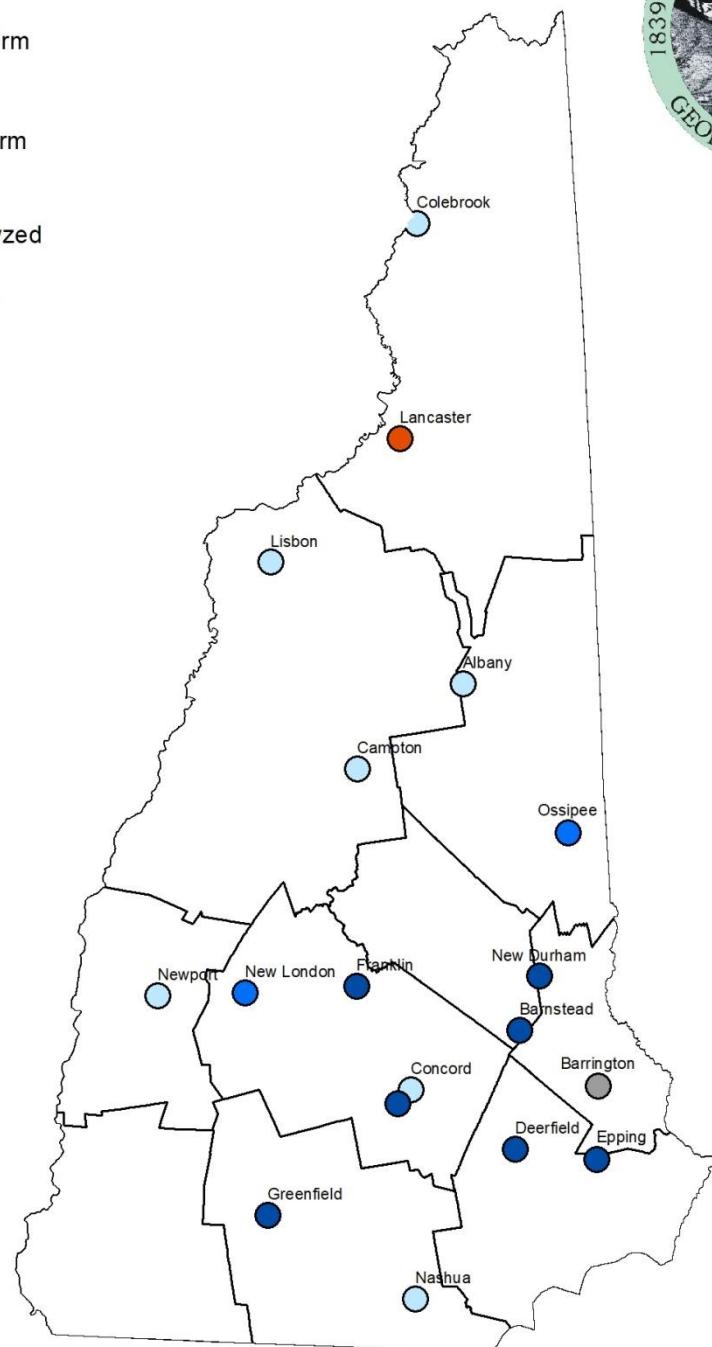
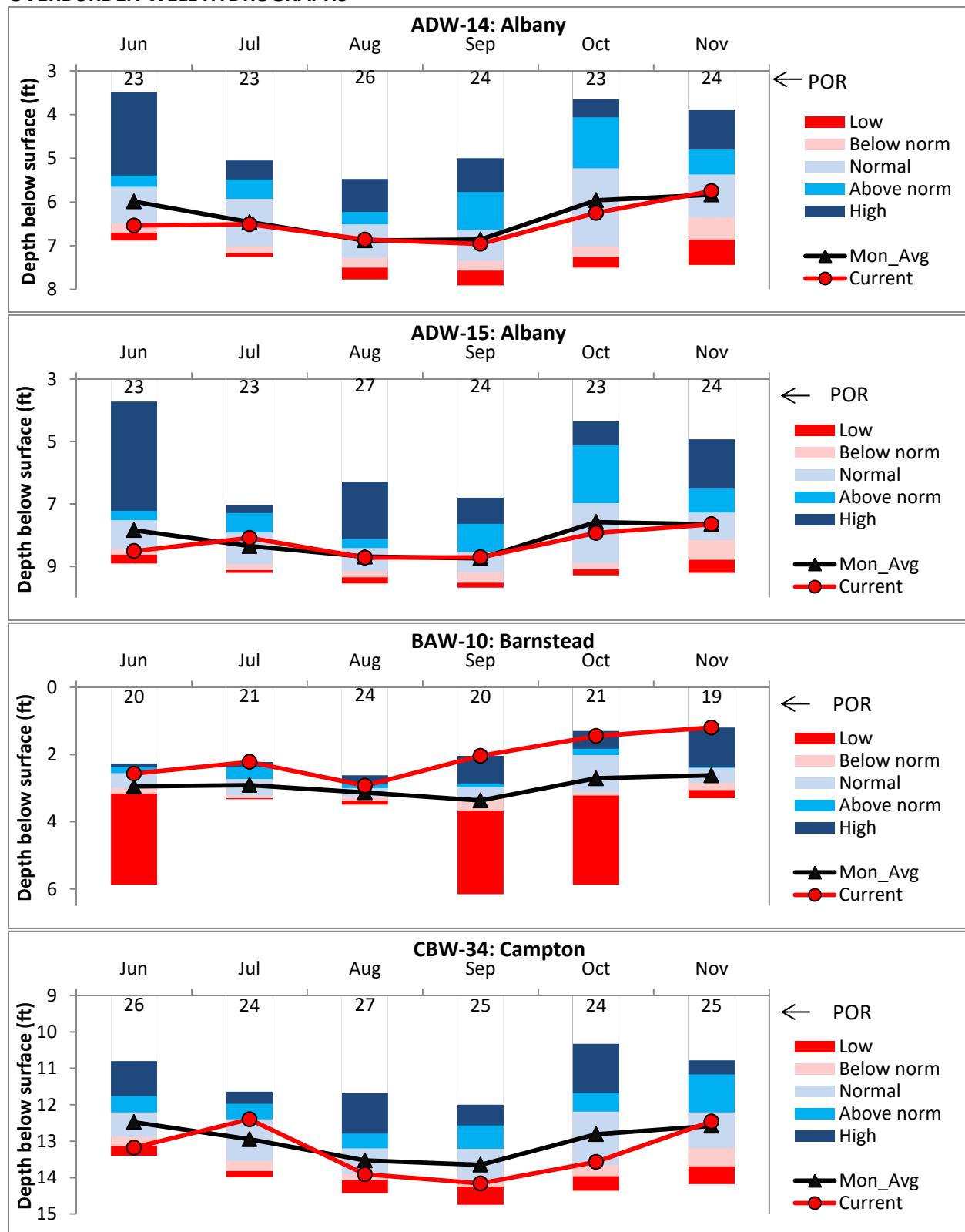
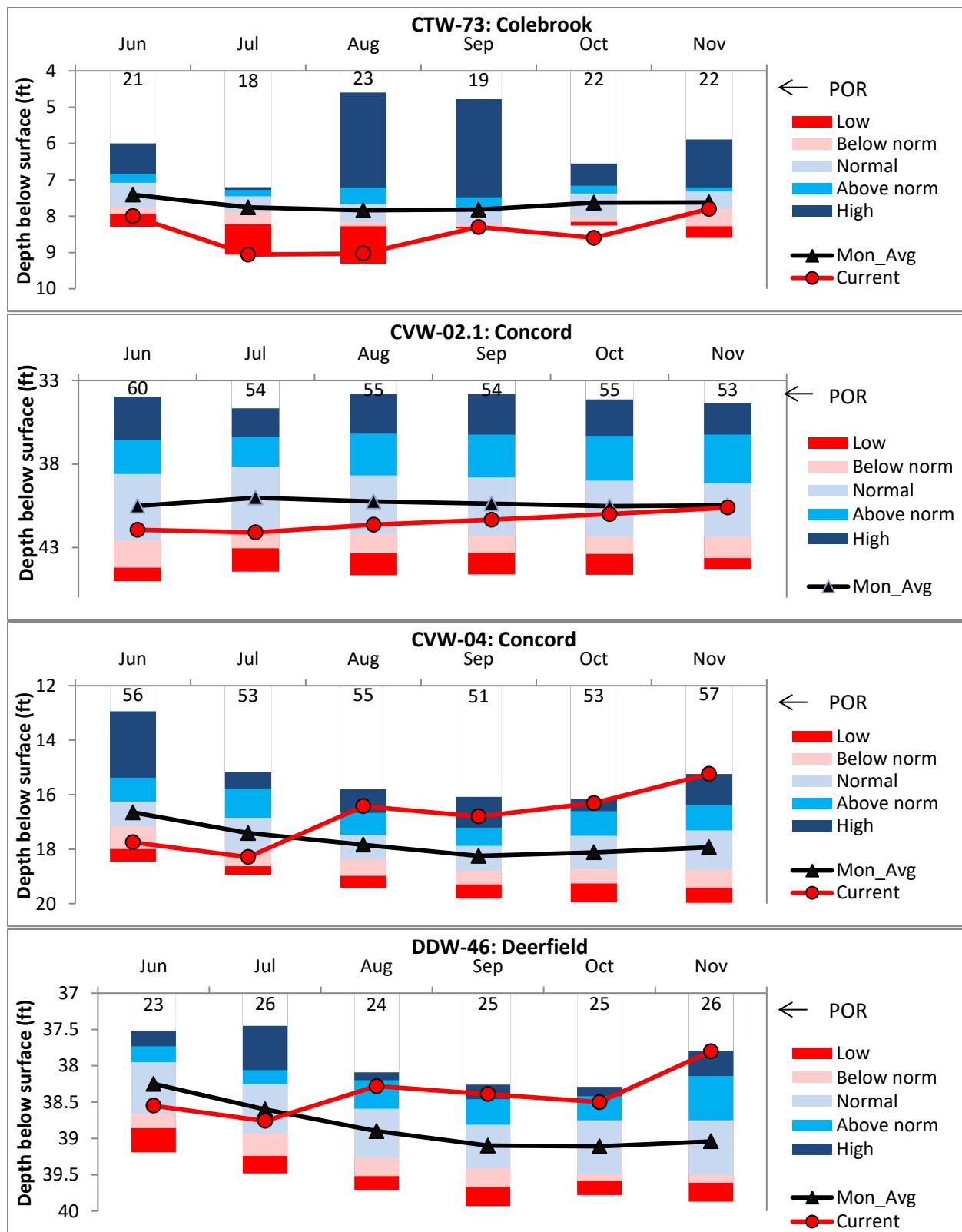
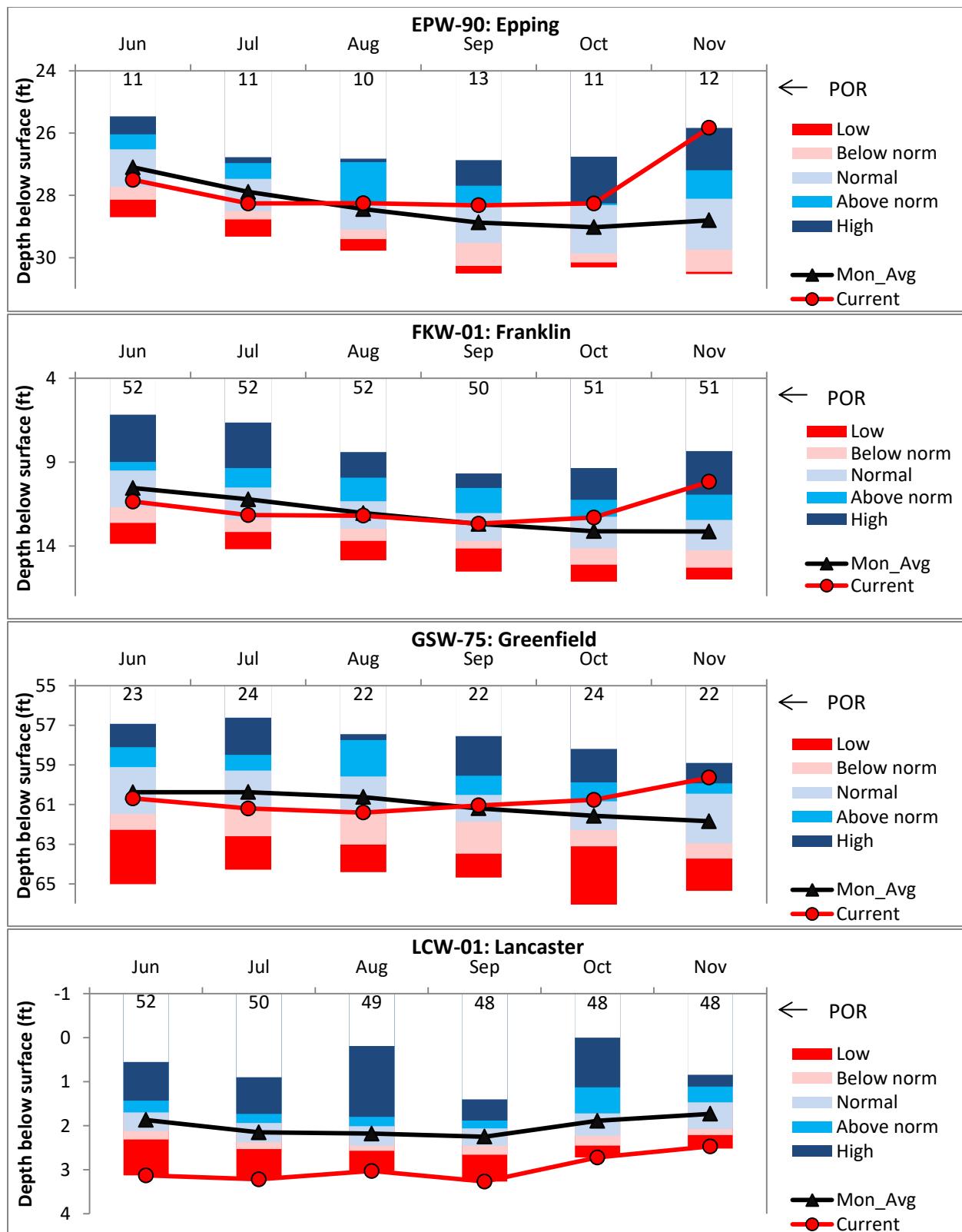


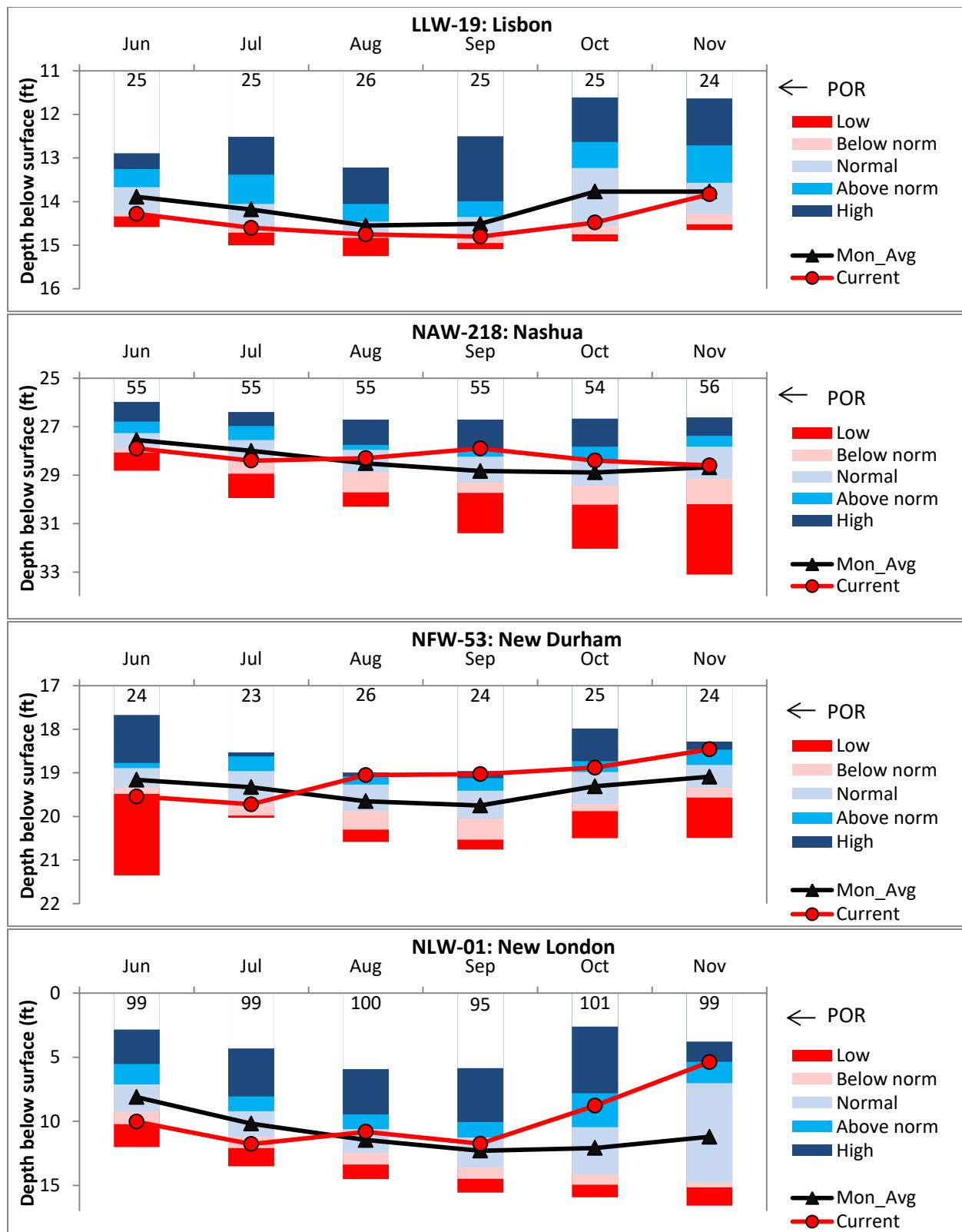
Figure 3. Overburden wells showing groundwater levels with respect to drought areas defined by the National Drought Mitigation Center. Note: Points at Newport and Albany represent a couplet.

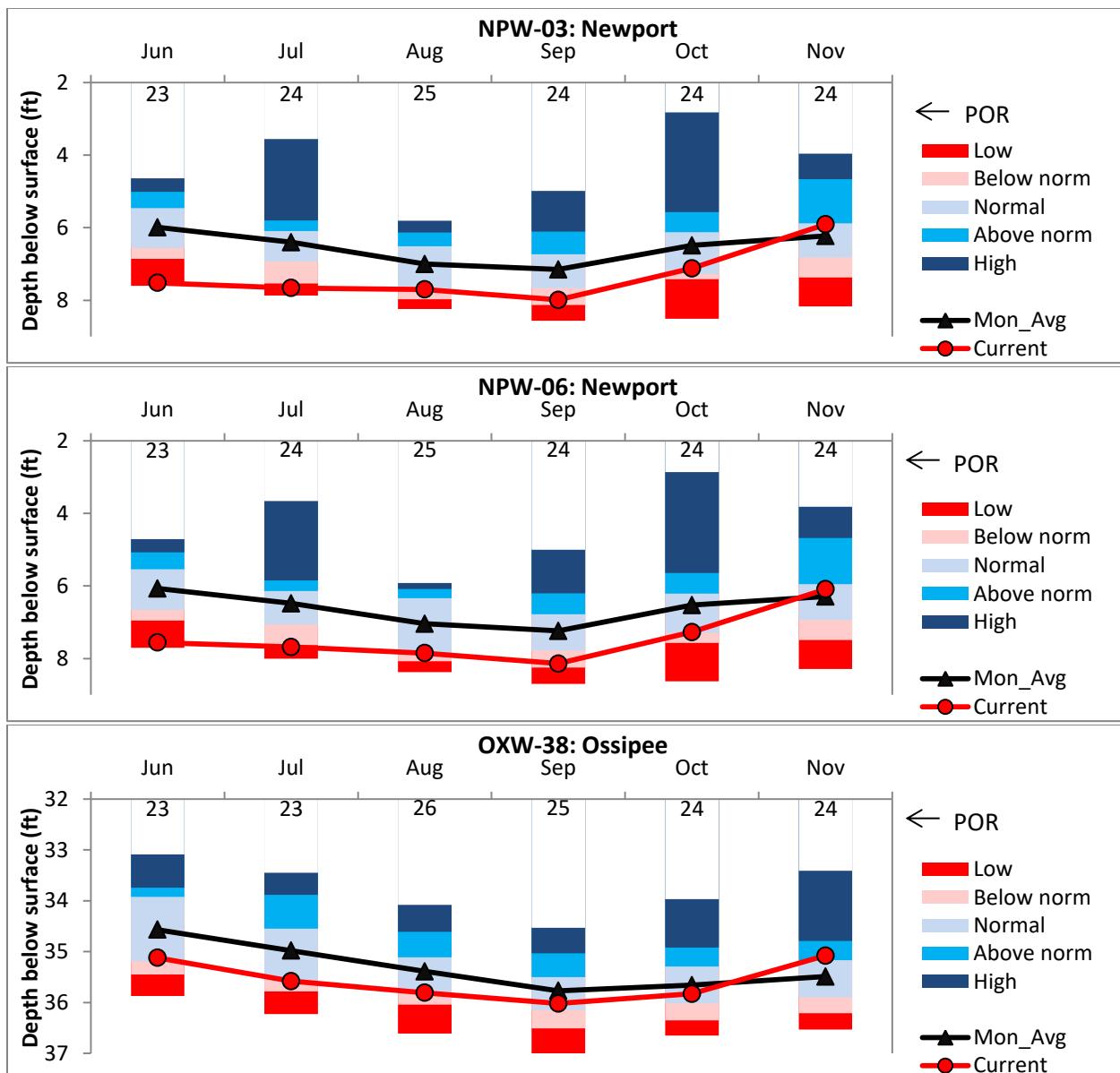
## OVERBURDEN WELL HYDROGRAPHS



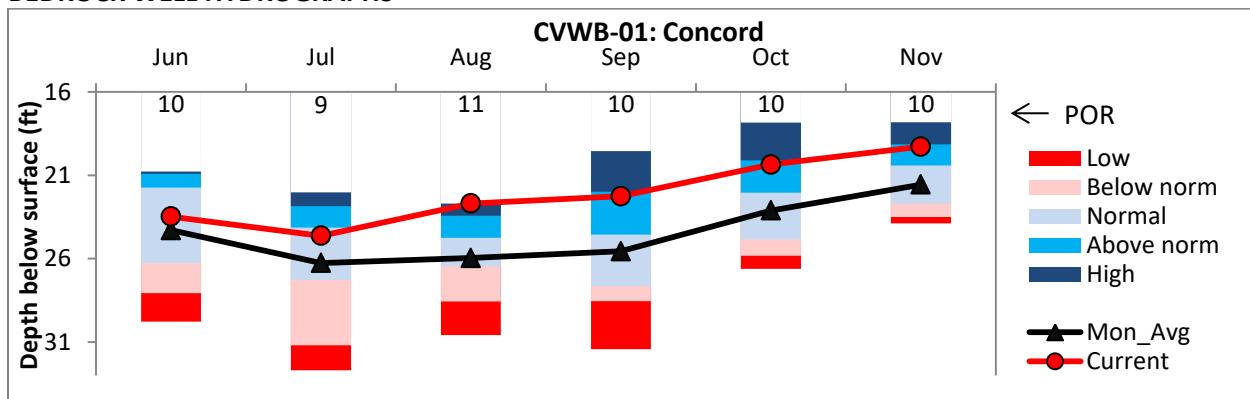


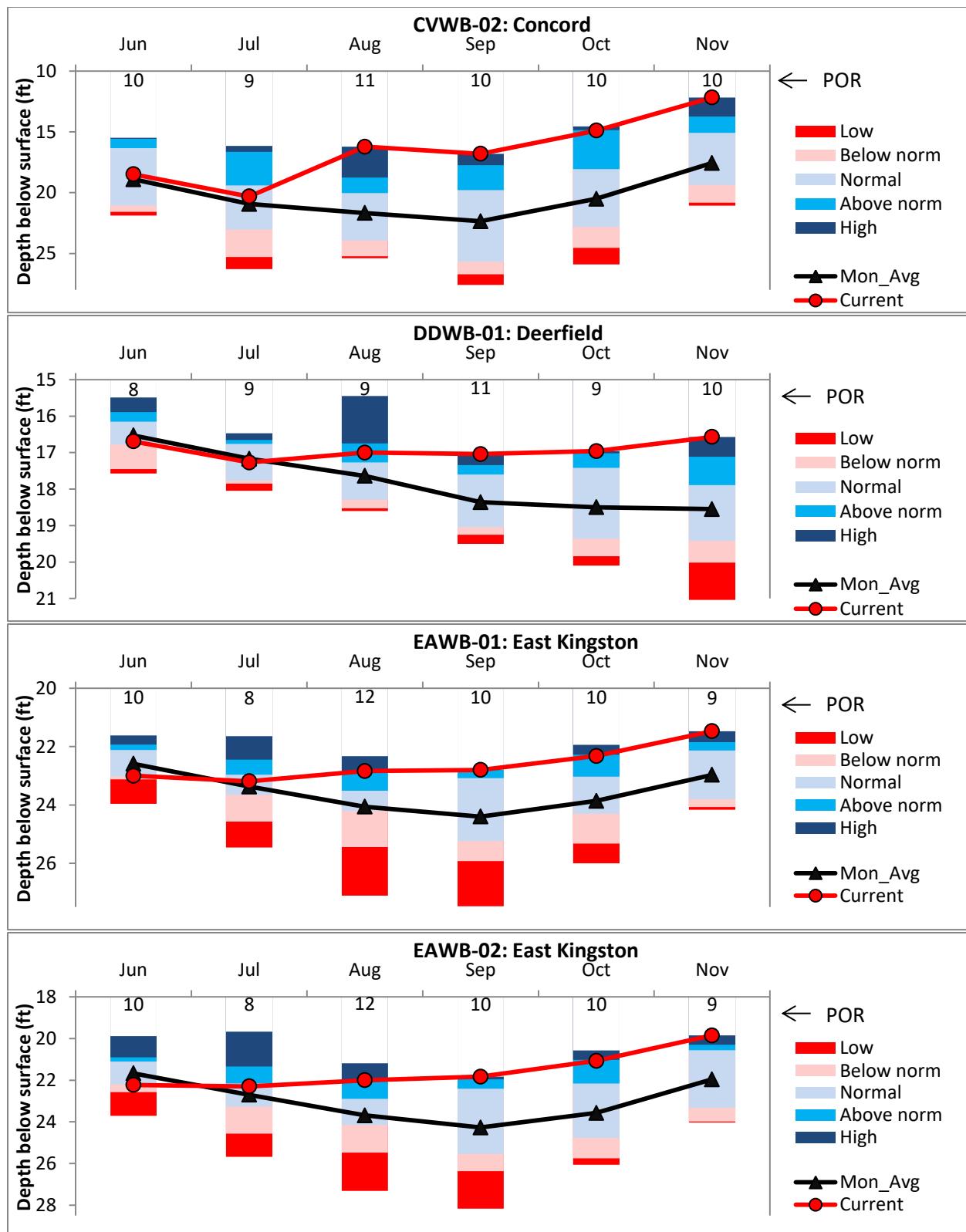


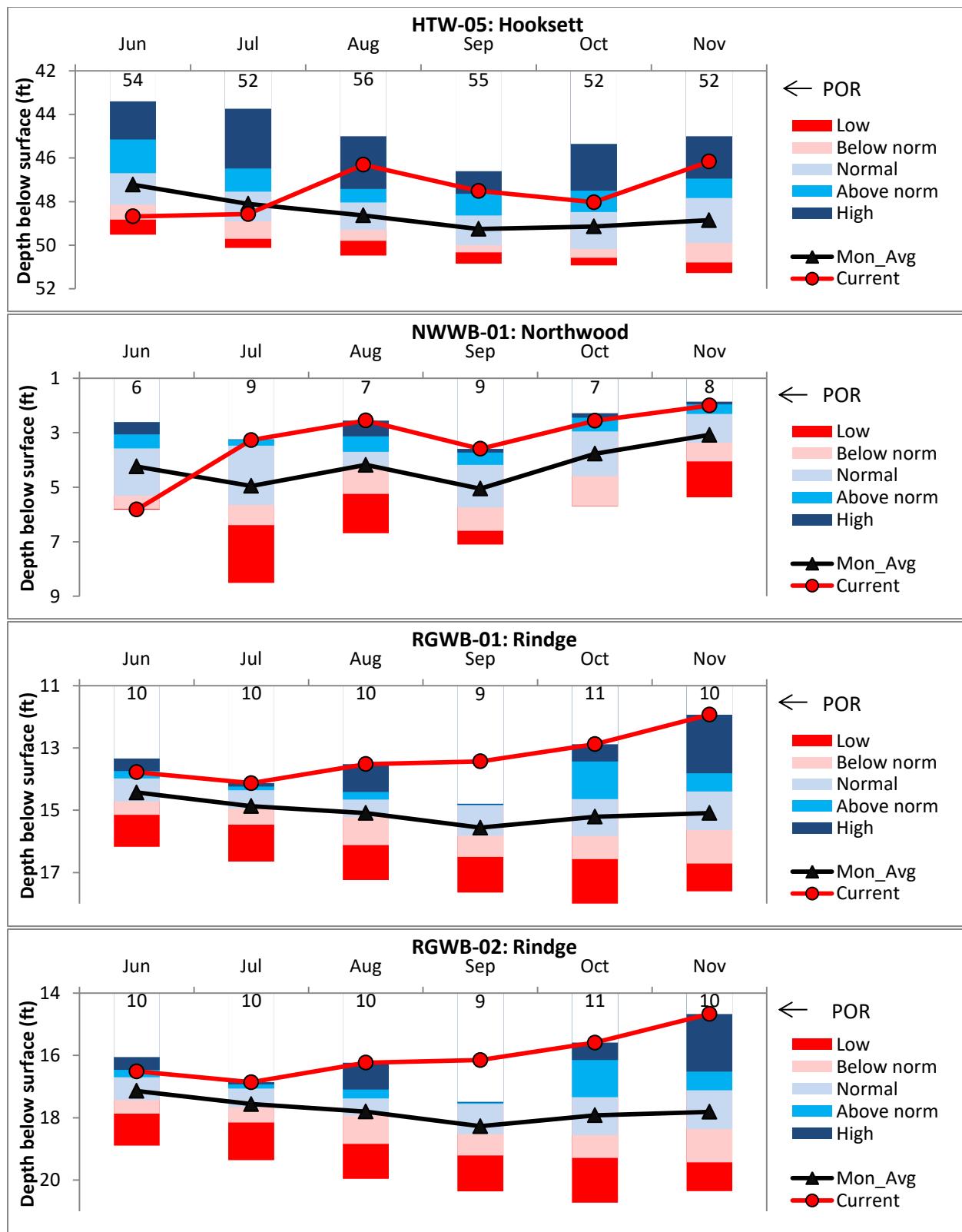


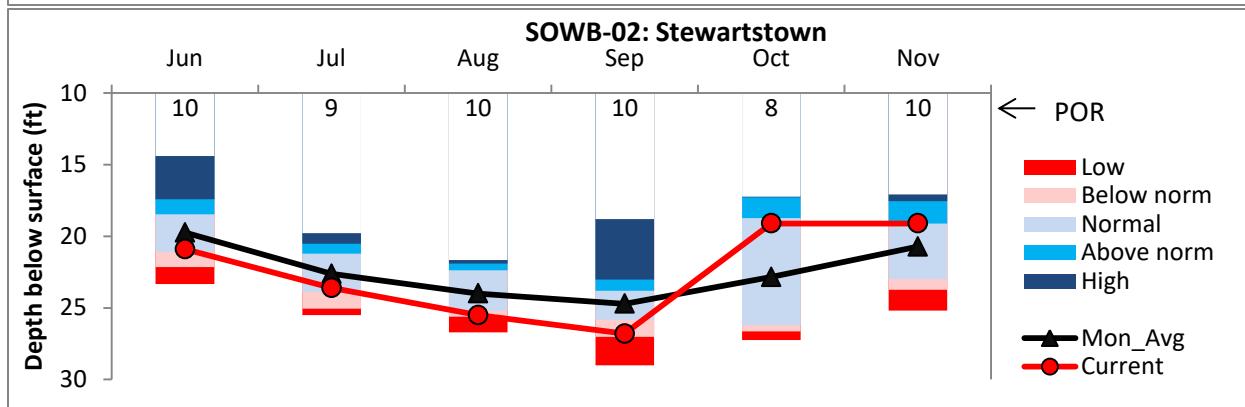
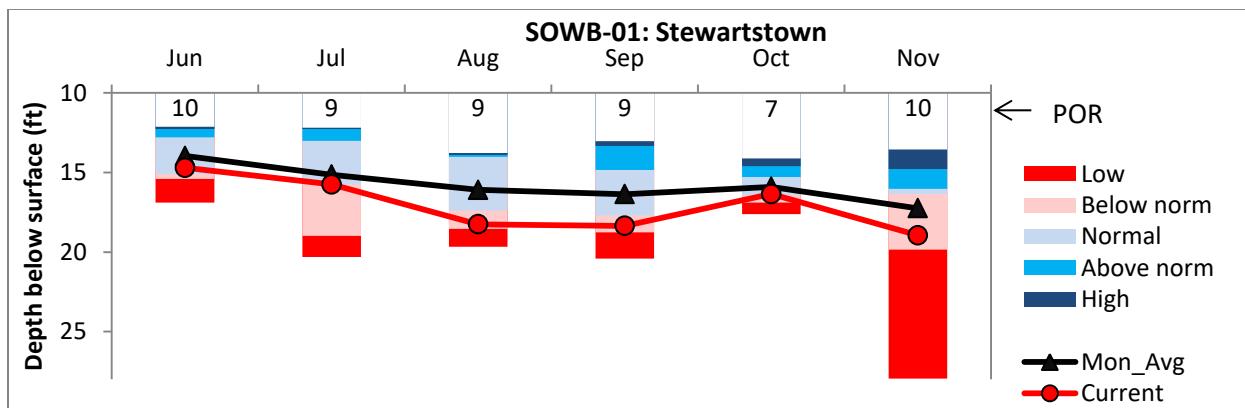


#### BEDROCK WELL HYDROGRAPHS









**Table 1.** Summary of groundwater levels in overburden wells

| Well     | Region      | Well Type  | Screen/open Interval (ft) | Depth to Water (ft) | Monthly Average (ft) | Current Status | Departure from Avg. (ft) | No.of meas. |
|----------|-------------|------------|---------------------------|---------------------|----------------------|----------------|--------------------------|-------------|
| BAW-10   | Lakes       | Overburden | 23-25                     | 1.2                 | 2.62                 | High           | 1.42                     | 19          |
| FKW-01   | Lakes       | Overburden | 49.8-52.3                 | 10.17               | 13.14                | High           | 2.97                     | 51          |
| NFW-53   | Lakes       | Overburden | 58-60                     | 18.46               | 19.09                | High           | 0.63                     | 24          |
| OXW-38   | Lakes       | Overburden | 112.7-114.7               | 35.08               | 35.49                | Above norm     | 0.41                     | 24          |
| CVW-02.1 | Merrimack   | Overburden | 59.8-61.8                 | 40.61               | 40.475               | Normal         | -0.135                   | 53          |
| CVW-04   | Merrimack   | Overburden | 39.45-40.7                | 15.24               | 17.93                | High           | 2.69                     | 57          |
| DDW-46   | Merrimack   | Overburden | 45.5-47.5                 | 37.8                | 39.04                | High           | 1.24                     | 26          |
| NAW-218  | Merrimack   | Overburden | 40.5-42.5                 | 28.6                | 28.68                | Normal         | 0.08                     | 56          |
| CVWB-01  | Merrimack   | Bedrock    | 470-480                   | 19.29               | 21.56                | Above norm     | 2.27                     | 10          |
| CVWB-02  | Merrimack   | Bedrock    | 0-315                     | 12.17               | 17.56                | High           | 5.39                     | 10          |
| DDWB-01  | Merrimack   | Bedrock    | 300                       | 16.57               | 18.55                | High           | 1.98                     | 10          |
| HTW-05   | Merrimack   | Bedrock    | 102.7                     | 46.16               | 48.85                | High           | 2.69                     | 52          |
| NWWB-01  | Merrimack   | Bedrock    | 130                       | 2                   | 3.08                 | Above norm     | 1.08                     | 8           |
| GSW-75   | Monadnock   | Overburden | 66-68                     | 59.64               | 61.84                | High           | 2.2                      | 22          |
| RGWB-01  | Monadnock   | Bedrock    | 391-401                   | 11.93               | 15.09                | High           | 3.16                     | 10          |
| RGWB-02  | Monadnock   | Bedrock    | 0-285                     | 14.67               | 17.81                | High           | 3.14                     | 10          |
| CTW-73   | North Woods | Overburden | 25-27                     | 7.8                 | 7.62                 | Normal         | -0.18                    | 22          |
| LCW-01   | North Woods | Overburden | 28-30                     | 2.47                | 1.73                 | Low            | -0.74                    | 53          |
| SOWB-01  | North Woods | Bedrock    | 443-453                   | 18.95               | 20.58                | Below norm     | -1.7                     | 10          |
| SOWB-02  | North Woods | Bedrock    | 0-303                     | 19.1                | 17.39                | Normal         | 1.62                     | 10          |
| BBW-53   | Seacoast    | Overburden | 21-23                     | 2.7                 | 3.69                 | Not Analyzed   | 0.99                     | 3           |
| EPW-90   | Seacoast    | Overburden | 35.8-37.8                 | 25.83               | 28.8                 | High           | 2.97                     | 12          |
| EAWB-01  | Seacoast    | Bedrock    | 463-473                   | 21.47               | 22.97                | High           | 1.5                      | 9           |
| EAWB-02  | Seacoast    | Bedrock    | 0-323                     | 19.85               | 21.96                | High           | 2.11                     | 9           |
| NLW-01   | Sunapee     | Overburden | 0-22.55                   | 5.38                | 11.21                | Above norm     | 5.83                     | 99          |
| NPW-03   | Sunapee     | Overburden | 55-57                     | 5.91                | 6.23                 | Normal         | 0.32                     | 24          |
| NPW-06   | Sunapee     | Overburden | 18-20                     | 6.09                | 6.29                 | Normal         | 0.2                      | 24          |
| ADW-14   | White Mtns  | Overburden | 77.5-79.5                 | 5.75                | 5.83                 | Normal         | 0.08                     | 24          |
| ADW-15   | White Mtns  | Overburden | 16-18                     | 7.65                | 7.65                 | Normal         | 0                        | 24          |
| CBW-34   | White Mtns  | Overburden | 105-107                   | 12.46               | 12.58                | Normal         | 0.12                     | 25          |
| LLW-19   | White Mtns  | Overburden | 40-42                     | 13.83               | 13.77                | Normal         | -0.06                    | 24          |